

Mad 1 (C-19): sc-222

BACKGROUND

It is now well established that the nature and relative abundance of individual subunits of different classes of transcription factors can positively or negatively regulate levels of gene expression. Myc proteins homodimerize and bind DNA poorly, if at all, at physiological levels. Max is a nuclear localized bHLH-Zip protein initially identified by screening a B cell expression library with the bHLH-Zip region of c-Myc. Max homodimers and the Myc-Max heterodimers bind the sequence CACGTG; however the binding of the heterodimeric complex is stronger than the Max homodimer. In contrast to Myc which is highly regulated during progression through the cell cycle, Max is highly stable and is much more abundant than Myc. Two members of the bHLH-Zip protein family, designated Mad and Mxi 1 homodimerize poorly but form heterodimeric complexes with Max that have opposing functions to Myc-Max heterodimers with respect to regulation of gene expression.

CHROMOSOMAL LOCATION

Genetic locus: MXD1 (human) mapping to 2p13.3; Mxd1 (mouse) mapping to 6 D1.

SOURCE

Mad 1 (C-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of Mad 1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-222 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-222 X, 200 µg/0.1 ml.

APPLICATIONS

Mad 1 (C-19) is recommended for detection of Mad 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Mad 1 siRNA (h): sc-38073, Mad 1 siRNA (m): sc-38074, Mad 1 shRNA Plasmid (h): sc-38073-SH, Mad 1 shRNA Plasmid (m): sc-38074-SH, Mad 1 shRNA (h) Lentiviral Particles: sc-38073-V and Mad 1 shRNA (m) Lentiviral Particles: sc-38074-V.

Mad 1 (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of Mad 1: 25 kDa.

Molecular Weight (observed) of Mad 1: 32-35 kDa.

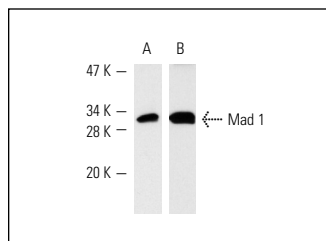
RESEARCH USE

For research use only, not for use in diagnostic procedures.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



Mad 1 (C-19): sc-222. Western blot analysis of Mad 1 expression in A-431 (A) and C32 (B) nuclear extracts.

SELECT PRODUCT CITATIONS

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3. Azouz, A., et al. 2010. Epigenetic plasticity of hTERT gene promoter determines retinoid capacity to repress telomerase in maturation-resistant acute promyelocytic leukemia cells. *Leukemia* 24: 613-622.
4. Wang, S., et al. 2010. Distinct and temporal roles of nucleosomal remodeling and histone deacetylation in the repression of the hTERT gene. *Mol. Biol. Cell* 21: 821-832.
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6. Terragni, J., et al. 2011. The E-box binding factors Max/Mnt, MITF, and USF1 act coordinately with FoxO to regulate expression of proapoptotic and cell cycle control genes by phosphatidylinositol 3-kinase/Akt/glycogen synthase kinase 3 signaling. *J. Biol. Chem.* 286: 36215-36227.
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8. Palianopoulou, M., et al. 2011. The activation of leptin-mediated survivin is limited by the inducible suppressor SOCS-3 in MCF-7 cells. *Exp. Biol. Med.* 236: 70-76.
9. Papanikolaou, V., et al. 2011. hTERT regulation by NF-κB and c-myc in irradiated HER2-positive breast cancer cells. *Int. J. Radiat. Biol.* 87: 609-621.
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